

CITY OF BELLEVUE 2014 DRINKING WATER QUALITY REPORT




*Results
from
testing
in 2013*

TAP INTO EXCEPTIONAL WATER!

Once again, the City of Bellevue is pleased to tell you that the drinking water we deliver to your home or business is safe, reliable, and of the highest quality. Stringent testing in 2013 showed that your drinking water met or surpassed all state and federal drinking water standards. We are sending this annual Water Quality Report in compliance with the Safe Drinking Water Act and State Department of Health requirements. Inside you'll learn where your water comes from, how it's treated, monitored, protected, and other information. If you have any questions about this report or your water, please call Bellevue's Water Quality staff at 425-452-6192.

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WHERE YOUR WATER COMES FROM

Bellevue's great-tasting water comes from the Cedar River and Tolt River watersheds in the Cascade Mountains. Bellevue purchases its water from Cascade Water Alliance, an organization that purchases water from Seattle and provides it to its members.

Cascade, now in its 15th year, was formed in 1999 to provide you with water today and tomorrow. In addition to Bellevue, members include Issaquah, Kirkland, Redmond, Tukwila, the Sammamish Plateau, and Skyway Water and Sewer Districts. Each member has a voice in determining its community's future by ensuring the availability of safe and reliable drinking water. As an organization, Cascade also works closely with all water providers in the Central Puget Sound region, ensuring every drop of available water is used before another drop is developed and that water will be available to the region in case of an emergency.

Currently, Cascade gets its water from the Seattle Public Utilities' distribution system. In 2009, Cascade purchased Lake Tapps. The state issued Cascade the official water rights to develop Lake Tapps as a drinking water supply—the newest water supply in the region in decades. As a result of customers like you who use water wisely, responsible plumbing codes, and water efficient appliances, we have enough water for the future and likely won't develop Lake Tapps until it is needed. But it is there as a vital natural resource for the region.

Planning for water takes decades. That's why Bellevue and Cascade are planning now for the future. When you turn on the tap at home or at work for a drink of clean, safe, and reliable water, it will be there today and tomorrow.

Visit www.cascadewater.org



REDUCING LEAD FROM PLUMBING FIXTURES

Lead found in drinking water is primarily from materials and components associated with service lines and home plumbing. Bellevue is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead. If you have concerns about lead in your water, please call Water Quality at 425-452-6192.

Bellevue's most recent Lead and Copper monitoring results (2011)[#]

Parameter and Units	MCLG	Action Level ⁺	2011 Results [*]	Homes Exceeding Action Level	Source
Lead, ppb	0	15	7	4 of 50	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.13	0 of 50	

^{*} 90th Percentile; i.e. 90 percent of the samples were less than the values shown.

⁺ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

[#] The City of Bellevue is scheduled to perform Lead and Copper sampling again in 2014. When samples exceed Action Levels, Water Quality staff offer advice to residents on ways to keep their water safe.

WATER QUALITY MONITORING RESULTS FOR 2013

Your water is monitored and tested 365 days a year. After testing for close to 200 compounds, only a few were detected, and all were below the maximum level allowed by the EPA (see chart below).

If you would like to see a list of all compounds your water was tested for in 2013, please call Water Quality at 425-452-6192 or visit the city's website at www.bellevuewa.gov/utilities.htm.

	EPA's allowable limits		Levels in Cedar Water		Levels in Tolt Water			
Detected Compounds and Units	MCLG	MCL	Average	Range	Average	Range	Typical Sources	In Compliance
Raw Water before treatment								
Total Organic Carbon ppm	NA	TT	0.8	0.4 - 1.4	1.3	1.2 to 1.4	Naturally present in the environment	Yes
Cryptosporidium* #100L	NA	NA	ND	ND	<1	ND to 2	Naturally present in the environment	Yes
Finished Water after treatment								
Turbidity NTU	NA	TT	0.4	0.2 to 2.7	0.06	0.04 to 0.14	Soil runoff	Yes
Fluoride ppm	4	4	0.8	.07 to 0.8	0.8	0.7 to 0.9	Water additive, which promotes strong teeth	Yes
Barium ppb	2000	2000	1.8	(one sample)	1.9	(one sample)	Erosion of natural deposits	Yes
Bromate ppb	0	10	0.08	ND to 2	ND	ND	By-product of drinking water disinfection	Yes
Total Trihalomethanes ppb	NA	80	Average = 28.3 Range = 10.5 - 41.8				By-products of drinking water chlorination	Yes
Haloacetic Acids (5) ppb	NA	60	Average = 25.4 Range = 12.5 - 38.8				By-products of drinking water chlorination	Yes
Chlorine ppm	MRDLG = 4	MRDL = 4	Average = 0.92 mg/L Range = 0.05 – 1.67 mg/L				Water additive used to control microbes	Yes
Coliform Total %	0	5%	Highest month = 0.92%				Naturally present in the environment	Yes

*Cryptosporidium was not detected in any of 3 samples on the Cedar and was detected in 1 of 4 samples on the Tolt.

KEY TO ABBREVIATIONS IN CHART

MCLG: Maximum Contaminant Level Goal

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL: Maximum Contaminant Level

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL: Maximum Residual Disinfectant Level

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

TT: Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

NTU: Nephelometric Turbidity Unit

Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2012 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2012 were below 0.3 NTU.

NA: Not Applicable

ND: Not Detected

ppm: 1 part per million = 1 mg/L = 1 milligram per liter

ppb: 1 part per billion = 1 ug/L = 1 microgram per liter

1 ppm = 1000 ppb



TREATING YOUR WATER FOR SAFETY

To improve water quality, drinking water from the Tolt River and Cedar River watersheds supply is disinfected with ultra-violet technology and treated at a filtration and ozonation facility. The ozonation disinfection method is very effective at destroying *Cryptosporidium* and other microbial organisms. Chlorine is added to your water to prevent diseases such as cholera, giardiasis, and salmonellosis. Fluoride is added to prevent tooth decay, in accordance with a Seattle public vote in 1968. The concentration of fluoride was reduced in January, 2011 from 1 part per million to 0.8 part per million, the lowest concentration in the acceptable range defined by the Washington State Department of Health. After treatment, your water contains very few contaminants, and those present are below the allowable limits.

BELLEVUE PARTICIPATES IN FEDERAL WATER SAMPLING PROGRAM

In 2013, the City of Bellevue collected water samples under the Unregulated Contaminant Monitoring Rule 3 (UCMR3). Bellevue and approximately 6,000 other public water systems were selected to collect samples, based on population size served, not because of a water quality concern. The Environmental Protection Agency (EPA) utilizes the UCMR3 program to collect data for contaminants expected to be present in drinking water, but that do not have defined health-based standards. If you would like a full list of contaminants tested for or more information about Bellevue's results, please contact Water Quality at 425-452-6192. For more information about the program, visit EPA's website at <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/>

WHY IS EPA CONDUCTING THE UCMR3 PROGRAM?

The Safe Drinking Water Act gives EPA the responsibility to protect public health and set minimum standards for drinking water. To do this, EPA identifies contaminants that might be harmful to human health. EPA then determines whether to set drinking water standards for individual contaminants or to require water providers to use certain treatment processes to reduce or eliminate contaminants in the drinking water.



Bellevue's Testing Results For Unregulated Contaminants - UCMR3

Chromium (Total)	Average 0.20 ug/L	Range ND to 0.32
Chromium-6	Average 0.11 ug/L	Range 0.069 to 0.18
Strontium	Average 23.50 ug/L	Range 13 to 30
Vanadium	Average 0.35 ug/L	Range ND to 0.61

WHAT WAS BELLEVUE ASKED TO TEST FOR?

EPA required Bellevue and other water providers to test for 30 contaminants as part of UCMR3. Of those, four were found (see chart). Chromium is an element found naturally in the environment. Chromium-6 or hexavalent chromium occurs naturally in the environment, but can also be man-made. Strontium is a mineral that occurs naturally in the environment. Vanadium is a metal that occurs naturally in many different minerals and in fossil fuel deposits.

WHAT DO THESE RESULTS MEAN?

Bellevue's numbers for total chromium are far below EPA's drinking water standard of 0.1 milligrams per liter (mg/L) or 100 micrograms/litre (ug/L). Bellevue's numbers are displayed as ug/L in the chart above (1000 times smaller than the standard). If Bellevue's drinking water ever exceeds the EPA standard for total chromium, citizens will be notified. At this time, there is not a federal drinking water standard for chromium-6, strontium, or vanadium. If testing shows that a large number of drinking water systems have detected strontium or vanadium at levels of concern, EPA may decide to regulate them in the future.

Our Water Quality Team takes pride in keeping your water safe by:

- Conducting water main flushing, sampling and results tracking, and reservoir inspections.
- Managing the Cross Connection Control/Backflow Prevention Program.
- Assisting customers with water quality issues in their homes.
- Monitoring changing water distribution and water quality regulations.
- Training for water emergencies with other regional water providers.

MAKING
SURE YOUR
WATER IS
SAFE



WHAT THE EPA WANTS YOU TO KNOW

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

To ensure your water is safe to drink, the EPA and the Washington State Dept. of Health (DOH) prescribe regulations that limit the amount of contaminants in water provided by public water systems. The Food and Drug Administration and the Washington State Department of Agriculture regulations establish similar limits on bottled water.

As part of this process, the state assesses potential sources of contamination prior to treatment. DOH rates all surface drinking water supplies in Washington as having a susceptibility rating of high, regardless of whether contaminants have been detected or whether there are any sources of contaminants in the watershed. The Tolt and Cedar watersheds in the Cascade Mountains are highly protected. Because no agricultural, industrial, or recreational activities are permitted, and no one is allowed to live there, little opportunity exists for contaminants to enter the water. However, there is some potential for natural sources of contamination such as viruses, bacteria, and protozoa from wildlife; inorganic contaminants, such as salts and metals, which are naturally occurring; and organic contaminants, which result from chlorine combining with naturally occurring organic matter. For more information on Source Water Protection, visit www.doh.wa.gov/ehp/dw/default.htm

WATER SYSTEM UPGRADES

Keeping Bellevue's 620 miles of underground water main in top shape is critical for delivering high quality, dependable water. Bellevue is ahead of many cities in upgrading its system due to ongoing maintenance, capital planning, and financial policies. In 2013 Bellevue improved infrastructure by replacing 17,225 linear feet of aging asbestos cement water main pipe with new ductile iron pipe.



CITY OF BELLEVUE 2014 WATER USE EFFICIENCY UPDATE



Using water efficiently is important to provide a safe, reliable supply of water for our community's needs today and in the future. On behalf of Bellevue and other members, Cascade Water Alliance adopted a regional water use efficiency goal of 0.6 million gallons per day on an annual basis and 1.0 million gallons per day on a peak season (June-September) basis by the end of 2019.

In 2013, Bellevue supplied 5.88 billion gallons of water to a population of 142,900, with daytime workers, students, and visitors, increasing the population to 207,300. Bellevue's water system is fully metered. The city does its part to encourage the efficient use of water by minimizing water loss caused by leaks throughout its distribution system. Distribution system leakage or water loss was 5.6 percent of total consumption in 2013, below the Washington State standard of 10 percent.

Bellevue also offers water efficiency programs through its partnership with Cascade Water Alliance. Water efficiency programs seek to reduce indoor and outdoor water use by promoting high efficiency plumbing fixtures, appliances, and irrigation technologies, as well as leak detection and repair. Thanks to continuing community support and participation, these programs have been very successful. Since establishing the original water use efficiency goal, which ran from 2008 to 2013, Bellevue has saved 652,353 gpd. In 2013, residents, local businesses, property owners, and schools saved 85,900 gpd. Thank you for doing your part to conserve!

To learn more water efficiency programs and what you can do to save water, visit Cascade Water Alliance at www.cascadewater.org

FAST FACTS

Residents Served:

142,900

The City of Bellevue Has

SOFT WATER

1.56 GRAINS PER GALLON

Bellevue's Water System Has

25 WATER RESERVOIRS

22 PUMP STATIONS

620 MILES OF WATER MAIN PIPE

40,072 WATER METERS

5,863 FIRE HYDRANTS

FREQUENTLY ASKED QUESTIONS

After vacation, sometimes our water tastes and smells funny. What can we do about that?

Customers who live in homes with limited water use, who have been away from their home for several days, or who have recently moved into a home that was vacant may experience drinking water taste and odor issues due to the lack of water use. Opening all cold water faucets in the home for a minute daily and repeating for a couple of days should help freshen the water in the home. If the problem persists, please call Water Quality at 425-452-6192.

We just had an irrigation system installed.

Do we need to let the city know?

Yes! The City of Bellevue requires that backflow prevention be installed, in most cases, if you own an irrigation system, fire sprinkler system, or lake water pumping system, in compliance with Washington State law. A backflow assembly prevents water from flowing in the opposite direction from its normal flow. With the direction of flow reversed, due to a change in pressure, backflow can allow contaminants such as fertilizers, garden chemicals, insects, and pet waste to enter your drinking water system. If you have any of the above systems, but did not receive a reminder notice from the city about annual testing, please call Cross Connection at 425-452-5208. Your efforts help protect your drinking water quality!

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CITY OF BELLEVUE RESOURCES

Drinking Water Quality **425-452-6192**

Cross Connections and Backflow Assembly Testing **425-452-5208**

Utilities 24-hour Emergency Services

water main breaks, lack of water **425-452-7840**

Billing Issues **425-452-6973**

Discounts for low-income seniors and low-income
citizens with disabilities **425-452-5285**

Email: **Utilities@bellevuewa.gov**

Website: **www.bellevuewa.gov/utilities.htm**

The Environmental Services Commission advises Bellevue's City Council on Utilities issues. To get involved in water issues, call Bellevue Utilities at 425-452-4497 for meeting dates and other information.

SAFE DRINKING WATER ACT HOTLINE

Direct your drinking water questions to EPA's hotline: **1-800-426-4791**.

This report contains important information about your drinking water. To read it in other languages, visit www.bellevuewa.gov/water_quality.htm